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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,272

02/20/2004

Roger P. Jackson

10,387

7325

7590
John C. McMahon
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Kansas City, MO 64112

01/09/2008

EXAMINER

COMSTOCK, DAVID C

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/783,272	Applicant(s) JACKSON, ROGER P.	
	Examiner David Comstock	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05 November 2007 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-8, 10, 16 and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 298 10 798 U1 (Shafer) (cited by applicant).

Shafer discloses a threaded bone screw device 1 comprising an open head formed by a pair of spaced apart arms 4 and a cylindrical closure 3 (see, e.g., Figs. 1 and 2). The arms define a receiving channel for a bone fixation rod 2. Facing surfaces of the arms define guide and advancement structure 9 for rotatable mating with a guide flange on the closure. The guide flange is continuous and helical and has a compound

contour including an enlarged outer periphery with an inward facing component. It is noted that the flange (thread) is considered to have a compound contour because it is a reverse angle thread and/or lobular (i.e. Figs. 1 and 2) *and* it extends helically. Thus, as between several different points in any given region of the helically extending flange, there is a compound curvature. A multi-surface 14 hexagonal aperture 13 extends partially through the closure for engagement with a tool. The leading end comprises a V-shaped set ring 15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 9, 11-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 298 10 798 U1 (Shafer) in view of US 6,296,642 B1 (Morrison et al.) (cited by applicant).

Shafer discloses the claimed invention except for explicitly disclosing that the aperture for the tool could comprise lobes and grooves and that it could have dimensions such that it passes through the closure. Morrison et al. disclose a similar device comprising a closure 12 having an aperture 42 that passes therethrough to facilitate the accommodation of a tool. The aperture has a hexagonal, star-shaped or other known tool head shapes to transmit torque and facilitate rotation of the closure.

(See Fig. 1 and col. 4, lines 2-4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the device of Shafer with a closure having an aperture that passes therethrough and that has a star-shape or other known tool head shape comprising lobes and grooves, in view of Morrison et al., in order to facilitate the accommodation of a tool and to transmit torque to facilitate rotation of the closure. Alternatively, with respect to the depth of the aperture, it would have been obvious to simply provide the aperture of Morrison et al. with a depth in a range extending through the closure, since it has been held that where the general conditions of a claim are disclosed in the prior art, e.g., an aperture having some predetermined depth, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

Applicant's arguments filed 05 November 2007 have been fully considered but they are without merit.

Applicant asserts that the device of Shafer (DE 298 10 798 U1) is not "helically wound". Helically wound just means it progresses in a spiral or helical fashion, i.e. is threaded (as opposed to "twist-lock" designs). The translation provided by Applicant teaches not only that the device has threads but that the anti-splay grub screw is screwed in. The translation of Shafer referring to Fig. 2 reads:

In the exemplary embodiment shown in Figure 2, the bifurcated head 4 of the bone screw 1 likewise has a thread, which, however, has a top flank 11 and a bottom flank 10 embodied in a stepped fashion. The shoulder of the bottom flank

10 is shaped such that it forms an undercut 17. This undercut 17, particularly by means of the shoulder 18, prevents the legs 5 from being bent radially outward while the grub screw 3 is being screwed in. A positive lock is thus produced in the radial direction between the bifurcated head 4 and grub screw 3. This positive lock prevents, as previously mentioned, any slippage of the leg 5. (emphasis added)

It is quite clear that Shafer discloses a "threaded" structure (i.e., a *helically wound* flange structure.

Conclusion

This is a continued examination of this application following Applicant's Request for Continued Examination filed 05 November 2007. All claims are drawn to the same invention previously claimed. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Application/Control Number:
10/783,272
Art Unit: 3733

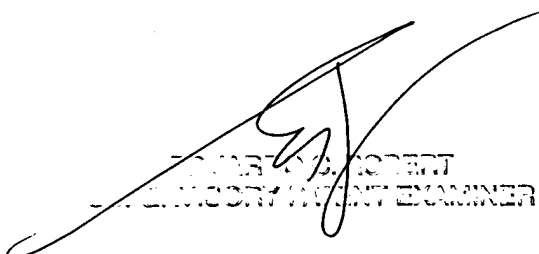
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Comstock whose telephone number is (571) 272-4710. Please leave a detailed voice message if examiner is unavailable. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached at (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D. Comstock



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SUPERVISOR